

AMENDMENTS TO THE CLAIMS

For the convenience of the Examiner, all claims have been presented whether or not an amendment has been made. The claims have been amended as follows:

1. **(Currently Amended)** A method for recording a video session at a client, comprising:

determining the processing capacity of the client;

establishing a recording interval in response to the determined processing capacity, the recording interval indicating a time between a first recording time and a second recording time;

recording a first video frame at the first recording time, the first video frame including first video data **that comprises a plurality of video pixels arranged in a plurality of rows and a plurality of columns;**

recording a second video frame at the second recording time, the second video frame including second video data **that comprises a corresponding plurality of video pixels arranged in a corresponding plurality of rows and a corresponding plurality of columns;** and

generating a video sub-frame comprising the second video data that is different from the first video data, **wherein generating the video sub-frame comprises:**

sequentially comparing each row of video pixels associated with the second video data with a corresponding row of video pixels associated with the first video data until identifying a row of video pixels where the second video data is different from the first video data, wherein:

sequentially comparing each row of video pixels is initiated from the first row of video pixels and performed until identifying a row of video pixels where the second video data is different from the first video data, the identified row defining a first boundary of the video sub-frame; and

sequentially comparing each row of video pixels is also initiated from the last row of video pixels and performed until

identifying a row of video pixels where the second video data is different from the first video data, the identified row defining a second boundary of the video sub-frame; and
sequentially comparing each column of video pixels associated with the second video data with a corresponding column of video pixels associated with the first video data until identifying a column of video pixels where the second video data is different from the first video data, wherein:

sequentially comparing each column of video pixels is initiated from the first column of video pixels and performed until identifying a column of video pixels where the second video data is different from the first video data, the identified column defining a third boundary of the video sub-frame; and

sequentially comparing each column of video pixels is also initiated from the last column of video pixels and performed until identifying a column of video pixels where the second video data is different from the first video data, the identified column defining a fourth boundary of the video sub-frame.

2. (Original) The method of Claim 1, further comprising communicating the first video frame and the video sub-frame to a video server coupled to the client.

3. (Original) The method of Claim 1, wherein the video sub-frame comprises a first video sub-frame and the recording interval further indicating the time between the second recording time and a third recording time, the method further comprising:
recording a third video frame at the third recording time, the third video frame including third video data; and

generating a second video sub-frame comprising the third video data that is different from the second video data.

4. **(Original)** The method of Claim 1, wherein the first video frame comprises a first key frame and the video sub-frame comprises a first video sub-frame, the method further comprising:

determining the network capacity of a communication path that couples the client to a video server;

establishing a key frame interval in response to the determined network capacity, the key frame interval indicating a time between the first recording time associated with the first key frame and a third recording time associated with a second key frame;

recording a third video frame at the third recording time, the third video frame comprising the second key frame and including third video data;

recording a fourth video frame at a fourth recording time, the fourth video frame including fourth video data;

generating a second video sub-frame comprising the fourth video data that is different from the third video data; and

communicating the first key frame, the first video sub-frame, the second key frame, and the second video sub-frame to the video server.

5. **(Cancelled)**

6. **(Cancelled)**

7. **(Cancelled)**

8. **(Original)** The method of Claim 1, further comprising determining the available processing resources of the client and wherein the step of generating a video sub-frame comprises generating a video sub-frame if the available processing resources of the client exceeds a predetermined threshold.

9. **(Original)** The method of Claim 3, wherein:
 the step of recording the first video frame comprises storing the first video frame in a queue at the client;
 the step of recording the second video frame comprises storing the second video frame in the queue;
 the step of recording the third video frame comprises storing the third video frame in the queue;
 the method further comprising:
 determining the available memory resources of the client;
 removing a selected one of the second video frame or the third video frame from the queue if the available memory resources of the client fall below a predetermined threshold.

10. **(Original)** The method of Claim 3, wherein the step of recording the first video frame comprises storing the first video frame in a queue at the client, and the step of recording the second video frame comprises storing the second video frame in the queue, the method further comprising:
 removing the first video frame from the queue upon generating the first video sub-frame; and
 removing the second video frame from the queue upon generating the second video sub-frame.

11. **(Original)** The method of Claim 4, further comprising compressing the first key frame, the first video sub-frame, the second key frame, and the second video sub-frame prior to the step of communicating.

12. **(Original)** The method of Claim 2, wherein the step of communicating comprises:
 communicating a first video segment comprising the first video data; and
 communicating a second video segment comprising the video sub-frame.

13. **(Original)** The method of Claim 1, wherein:
the first video data comprises the video activity of the client for a first interval of time; and
the second video data comprises the video activity of the client for a second interval of time.

14. **(Original)** A client for recording a video session, comprising:
a memory operable to:
store a first video frame recorded at a first recording time, the first video frame including first video data **that comprises a plurality of video pixels arranged in a plurality of rows and a plurality of columns;** and
store a second video frame recorded at a second recording time, the second video frame including second video data **that comprises a corresponding plurality of video pixels arranged in a corresponding plurality of rows and a corresponding plurality of columns;**
and
a processor coupled to the memory and operable to:
determine the processing capacity of the client;
establish a recording interval in response to the determined processing capacity, the recording interval indicating a time between the first recording time and the second recording time; and
generate a video sub-frame comprising the second video data that is different from the first video data, **wherein generating the video sub-frame comprises:**
sequentially comparing each row of video pixels associated with the second video data with a corresponding row of video pixels associated with the first video data until identifying a row of video pixels where the second video data is different from the first video data, wherein:
sequentially comparing each row of video pixels is initiated from the first row of video pixels and performed until identifying a row of video pixels where the second video data is different from the first video data, the identified row defining a first boundary of the video sub-frame; and

sequentially comparing each row of video pixels is also initiated from the last row of video pixels and performed until identifying a row of video pixels where the second video data is different from the first video data, the identified row defining a second boundary of the video sub-frame; and sequentially comparing each column of video pixels associated with the second video data with a corresponding column of video pixels associated with the first video data until identifying a column of video pixels where the second video data is different from the first video data, wherein:

sequentially comparing each column of video pixels is initiated from the first column of video pixels and performed until identifying a column of video pixels where the second video data is different from the first video data, the identified column defining a third boundary of the video sub-frame; and

sequentially comparing each column of video pixels is also initiated from the last column of video pixels and performed until identifying a column of video pixels where the second video data is different from the first video data, the identified column defining a fourth boundary of the video sub-frame.

15. (Original) The client of Claim 14, wherein the processor is further operable to communicate the first video frame and the video sub-frame to a video server coupled to the client.

16. (Original) The client of Claim 14, wherein the video sub-frame comprises a first video sub-frame and the recording interval rate further indicating the time between the second recording time and a third recording time, the processor further operable to:

record a third video frame at the third recording time, the third video frame including third video data; and

generate a second video sub-frame comprising the third video data that is different from the second video data.

17. **(Original)** The client of Claim 14, wherein the first video frame comprises a first key frame and the video sub-frame comprises a first video sub-frame, the processor further operable to:

determine the network capacity of a communication path that couples the client to a video server;

establish a key frame interval in response to the determined network capacity, the key frame interval indicating a time between the first recording time associated with the first key frame and a third recording time associated with a second key frame;

record a third video frame at the third recording time, the third video frame comprising the second key frame and including third video data;

record a fourth video frame at a fourth recording time, the fourth video frame including fourth video data;

generate a second video sub-frame comprising the fourth video data that is different from the third video data; and

communicate the first key frame, the first video sub-frame, the second key frame, and the second video sub-frame to the video server.

18. **(Cancelled)**

19. **(Cancelled)**

20. **(Cancelled)**

21. **(Original)** The client of Claim 16, wherein the processor is further operable to:

determine the available processing resources of the client; and

generate a video sub-frame if the available processing resources of the client exceeds a predetermined threshold.

22. **(Original)** The client of Claim 16, wherein:
the memory is further operable to:
store the first video frame in a queue at the client;
store the second video frame in the queue; and
store the third video frame in the queue;
and
the processor is further operable to:
determine the available memory resources of the client; and
remove a selected one of the second video frame or the third video frame from
the queue if the available memory resources of the client does not exceed a predetermined
threshold.

23. **(Original)** The client of Claim 16, wherein:
the memory is further operable to store the first video frame and the second
video frame in a queue at the client; and
the processor is further operable to remove the first video frame from the
queue upon generating the first video sub-frame, and to remove the second video frame from
the queue upon generating the second video sub-frame.

24. **(Original)** The client of Claim 17, wherein the processor is further
operable to compress the first key frame, the first video sub-frame, the second key frame, and
the second video sub-frame prior to communicating.

25. **(Original)** The client of Claim 15, wherein the processor is further
operable to:
communicate a first video segment comprising the first video data; and
communicate a second video segment comprising the video sub-frame.

26. **(Original)** The client of Claim 14, wherein:
the first video data comprises the video activity of the client for a first interval of time; and
the second video data comprises the video activity of the client for a second interval of time.

27. **(Original)** A system for recording a video session, comprising:
a video server operable to communicate a start record command; and
a client coupled to the video server using a communication path and operable to:

determine the processing capacity of the client;
establish a recording interval in response to the determined processing capacity, the recording interval indicating a time between a first recording time and a second recording time;

record a first video frame at the first recording time in response to the start record command, the first video frame including first video data that comprises a plurality of video pixels arranged in a plurality of rows and a plurality of columns;

record a second video frame at the second recording time, the second video frame including second video data that comprises a corresponding plurality of video pixels arranged in a corresponding plurality of rows and a corresponding plurality of columns; and

generate a video sub-frame comprising the second video data that is different from the first video data, wherein generating the video sub-frame comprises:

sequentially comparing each row of video pixels associated with the second video data with a corresponding row of video pixels associated with the first video data until identifying a row of video pixels where the second video data is different from the first video data, wherein:

sequentially comparing each row of video pixels is initiated from the first row of video pixels and performed until identifying a row of video pixels where the second video data is different from the first video data, the identified row defining a first boundary of the video sub-frame; and

sequentially comparing each row of video pixels is also initiated from the last row of video pixels and performed until identifying a row of video pixels where the second video data is different from the first video data, the identified row defining a second boundary of the video sub-frame; and sequentially comparing each column of video pixels associated with the second video data with a corresponding column of video pixels associated with the first video data until identifying a column of video pixels where the second video data is different from the first video data, wherein:

sequentially comparing each column of video pixels is initiated from the first column of video pixels and performed until identifying a column of video pixels where the second video data is different from the first video data, the identified column defining a third boundary of the video sub-frame; and

sequentially comparing each column of video pixels is also initiated from the last column of video pixels and performed until identifying a column of video pixels where the second video data is different from the first video data, the identified column defining a fourth boundary of the video sub-frame.

28. (Original) The system of Claim 27, wherein the client is further operable to communicate the first video frame and the video sub-frame to the video server.

29. (Original) The system of Claim 27, wherein the video sub-frame comprises a first video sub-frame and the recording interval further indicating the time between the second recording time and a third recording time, the client further operable to:

record a third video frame at the third recording time, the third video frame including third video data; and

generate a second video sub-frame comprising the third video data that is different from the second video data.

30. **(Original)** The system of Claim 27, wherein the first video frame comprises a first key frame and the video sub-frame comprises a first video sub-frame, the client further operable to:

determine the network capacity of the communication path;

establish a key frame interval in response to the determined network capacity, the key frame interval indicating a time between the first recording time associated with the first key frame and a third recording time associated with a second key frame;

record a third video frame at the third recording time, the third video frame comprising the second key frame and including third video data;

record a fourth video frame at a fourth recording time, the fourth video frame including fourth video data;

generate a second video sub-frame comprising the fourth video data that is different from the third video data; and

communicate the first key frame, the first video sub-frame, the second key frame, and the second video sub-frame to the video server.

31. **(Cancelled)**

32. **(Cancelled)**

33. **(Cancelled)**

34. **(Original)** The system of Claim 27, wherein the client is further operable to:

determine the available processing resources of the client; and

generate a video sub-frame if the available processing resources of the client exceeds a predetermined threshold.

35. **(Original)** The system of Claim 29, wherein the client is further operable to:

- store the first video frame in a queue at the client;
- store the second video frame in the queue;
- store the third video frame in the queue;
- determine the available memory resources of the client; and
- remove a selected one of the second video frame or the third video frame from the queue if the available memory resources of the client does not exceed a predetermined threshold.

36. **(Original)** The system of Claim 29, wherein the client is further operable to:

- store the first video frame and the second video frame in a queue;
- remove the first video frame from the queue upon generating the first video sub-frame; and
- remove the second video frame from the queue upon generating the second video sub-frame.

37. **(Original)** The system of Claim 30, wherein the client is further operable to compress the first key frame, the first video sub-frame, the second key frame, and the second video sub-frame prior to communicating.

38. **(Original)** The system of Claim 28, wherein the client is further operable to:

- communicate a first video segment comprising the first video data; and
- communicate a second video segment comprising the video sub-frame.

39. **(Original)** The system of Claim 27, wherein:
the first video data comprises the video activity of the client for a first interval of time; and

- the second video data comprises the video activity of the client for a second interval of time.

40. (New) A method for recording a video session at a client, comprising:
recording a first video frame at a first recording time, the first video frame including first video data that comprises a plurality of video pixels arranged in a plurality of rows and a plurality of columns;

recording a second video frame at a second recording time, the second video frame including second video data that comprises a corresponding plurality of video pixels arranged in a corresponding plurality of rows and a corresponding plurality of columns; and

generating a video sub-frame comprising the second video data that is different from the first video data, wherein generating the video sub-frame comprises:

sequentially comparing each row of video pixels associated with the second video data with a corresponding row of video pixels associated with the first video data until identifying a row of video pixels where the second video data is different from the first video data, wherein:

sequentially comparing each row of video pixels is initiated from the first row of video pixels and performed until identifying a row of video pixels where the second video data is different from the first video data, the identified row defining a first boundary of the video sub-frame; and

sequentially comparing each row of video pixels is also initiated from the last row of video pixels and performed until identifying a row of video pixels where the second video data is different from the first video data, the identified row defining a second boundary of the video sub-frame; and

sequentially comparing each column of video pixels associated with the second video data with a corresponding column of video pixels associated with the first video data until identifying a column of video pixels where the second video data is different from the first video data, wherein:

sequentially comparing each column of video pixels is initiated from the first column of video pixels and performed until identifying a column of video pixels where the second video data is different from the first video data, the identified column defining a third boundary of the video sub-frame; and

sequentially comparing each column of video pixels is also initiated from the last column of video pixels and performed until identifying a column of video pixels where the second video data is different from the first video data, the identified column defining a fourth boundary of the video sub-frame.

41. **(New)** A client for recording a video session, comprising:
a memory operable to:

store a first video frame recorded at a first recording time, the first video frame including first video data that comprises a plurality of video pixels arranged in a plurality of rows and a plurality of columns; and

store a second video frame recorded at a second recording time, the second video frame including second video data that comprises a corresponding plurality of video pixels arranged in a corresponding plurality of rows and a corresponding plurality of columns;

and

a processor coupled to the memory and operable to generate a video sub-frame comprising the second video data that is different from the first video data, wherein generating the video sub-frame comprises:

sequentially comparing each row of video pixels associated with the second video data with a corresponding row of video pixels associated with the first video data until identifying a row of video pixels where the second video data is different from the first video data, wherein:

sequentially comparing each row of video pixels is initiated from the first row of video pixels and performed until identifying a row of video pixels where the second video data is different from the first video data, the identified row defining a first boundary of the video sub-frame; and

sequentially comparing each row of video pixels is also initiated from the last row of video pixels and performed until identifying a row of video pixels where the second video data is

different from the first video data, the identified row defining a second boundary of the video sub-frame; and

sequentially comparing each column of video pixels associated with the second video data with a corresponding column of video pixels associated with the first video data until identifying a column of video pixels where the second video data is different from the first video data, wherein:

sequentially comparing each column of video pixels is initiated from the first column of video pixels and performed until identifying a column of video pixels where the second video data is different from the first video data, the identified column defining a third boundary of the video sub-frame; and

sequentially comparing each column of video pixels is also initiated from the last column of video pixels and performed until identifying a column of video pixels where the second video data is different from the first video data, the identified column defining a fourth boundary of the video sub-frame.